

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 01-178006  
 (43)Date of publication of application : 14.07.1989

(51)Int. CI. B60C 11/04

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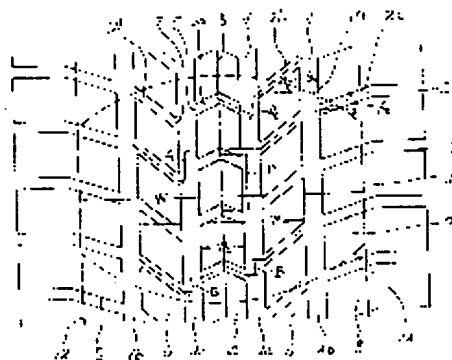
(54) PNEUMATIC TIRE HAVING MULTIPLE W-SHAPE SUBGROOVE SUITABLE FOR HIGH SPEED RUNNING

(57)Abstract:

PURPOSE: To enhance a brake performance on a wet road and reduce a pattern noise by arranging subgrooves in a W-form for connecting straight main grooves extending in tire circumferential direction and specifying the width of a V-part in the subgrooves and the inclination angle of the subgrooves respectively.

CONSTITUTION: In a pneumatic tire having a flatness rate of 60% or less, a tread is divided into a central region 4, an intermediate region 6 and a shoulder region 3. And the subgroove 2a of the central region 4 is formed to have a convex and the subgrooves 2b and 2c of both of other regions 6 and 3 are inclined to the same direction. Also, open positions for the central groove 1a of the subgrooves 2a and 2b are staggered from each other, while open positions for the outside main groove 1b of each subgroove 2a to 2c are made continuous to each other.

Furthermore, each of inclination angles  $\theta_c$ ,  $\theta_m$  and  $\theta_s$  from an axial line direction in the subgrooves 2a to 2c is set to 20 to 40 degrees, 30 to 50 degrees and 15 to 25 degrees respectively in order.



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[Date of request for examination]  
 [Date of sending the examiner's decision of rejection]  
 [Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's  
decision of rejection]

[Date of requesting appeal against  
examiner's decision of rejection]

[Date of extinction of right]

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